



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,909	07/14/2003	Bing Zhou	15913.39	7968

22913 7590 08/19/2005

WORKMAN NYDEGGER
(F/K/A WORKMAN NYDEGGER & SEELEY)
60 EAST SOUTH TEMPLE
1000 EAGLE GATE TOWER
SALT LAKE CITY, UT 84111

EXAMINER

CHOI, LING SIU

ART UNIT	PAPER NUMBER
----------	--------------

1713

DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/618,909

Applicant(s)

ZHOU ET AL.

Examiner

Ling-Siu Choi

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1-64 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/3/05, 5/31/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the Amendment filed April 4, 2005. Claims 1-64 are now pending. Claim rejections of 1-3, 9-11, 17, 20-24, 37, and 40-44 under 35 USC 102(e) by Zhou (US 6,740,615 B2) and claim rejections of claims 1-48 under 35 USC 102(a) by Heidemann et al. (US 6,528,683) are moved. Since the claim objections are based on the new ground, this Office Action is made as second non-final.

Claim Objections

2. Claims 1-64 are objected to because of the following informalities: (a) **claim 1**, lines 15-17; **claim 37**, lines 15-17 “the catalyst complex **being capable of** forming a supported reactive catalyst comprising a support and a plurality of reactive catalyst particles formed from the catalyst complex dispersed on the support in such a way” is suggested to be changed to --the catalyst complex forming a supported reactive catalyst comprising a support and a plurality of reactive catalyst particles formed from the catalyst complex which is dispersed on the support in such a way--; (b) **claim 36**, line 3; **claim 48**, line 3, “catalyst particles” is suggested to be changed to --reactive catalyst particles--; (c) **claim 49**, line 17; **claim 57**, line 16, “that is capable of forming” is suggested to be changed to --that forms--; (d) **claim 49**, line 19; **claim 57**, line 18, “dispersed” is suggested to be changed to --which is dispersed--.

Appropriate correction is required.

Allowable Subject Matter

Art Unit: 1713

3. Claims 1-64 are allowable over the closest references: Zhou (US 6,740,615 B2) and Heidemann et al. (US 6,528,683 B1).

Zhou discloses an intermediate obtained by contacting a dried and calcined noble metal catalyst on a support with an organo-metallic complex forming agent, which breaks down the noble metal particle clusters and relocates the resulting smaller metal in the organo-metallic complex forming agent, wherein the noble metal catalyst comprises at least one of palladium, platinum, gold, iridium, osmium, rhodium, and ruthenium and the organo-metallic complex forming agent comprises at least one of citric acid, succinic acid, glycine, salicylic acid, and glycolic acid (claims 1, 11, 15, 21, and 22). In view US 6,746,597 to Zhou et al., the intermediate disclosed in US 6,740,615 B2 does not have a nearest neighbor coordination number of 2.

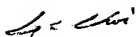
Heidemann et al. disclose a catalyst consisting essentially of a carrier core and catalytically active metal oxides, which is obtained by spraying an aqueous active material suspension at relatively high temperatures onto the carrier core material at 50-450°C, wherein the aqueous active material suspension contains the active metal oxide such as titanium oxide and a binder which is a polymer comprising 5-100 wt% of ethylenically unsaturated acid anhydrides or ethylenically unsaturated dicarboxylic acids and 0-95 wt% of monoethylenically unsaturated monomer (col. 3, lines 66-67; col. 4, lines 1-65; claim 1). Heidemann et al. further disclose that the metal oxide comprises zirconium oxide, iron oxide, nickel oxide, iridium oxide, cerium oxide, and alkali metal oxide (col. 8, lines 41-67; col. 9, lines 1-5). However, Heidemann et al. do not teach or fairly suggest an intermediate comprising the contact of metal instead of metal oxide with the control agent.

Art Unit: 1713

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner=s supervisor, David Wu, can be reach on 571-272-1114.



**LING-SUI CHOI
PRIMARY EXAMINER**

June 15, 2005